

## REMARKS

Claim 11 remains cancelled. Claims 12, 13, 15, and 16 are amended. Claims 1-10 and 12-16 are now in the application. Reconsideration of this application is respectfully requested.

Claims 12-13, and 15-16 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Claims 13, 15, and 16 were rejected for lacking clear antecedent bases of specifically cited items. The antecedent bases have been corrected by changes to these claims.

Claim 12 was rejected for "being unclear as written". No further guidance was provided by the examiner. Claim 12 is amended to remove a redundant article "a" in line 6 of the claim, but it is presumed this is not the reason the examiner concluded the claim was unclear. An inventor, a subject matter expert, and the representative for the applicants reviewed this claim in detail, and were not able to infer what is unclear to the examiner. The following statements are made concerning some of the antecedents in the claim:

The phrase "and have a shape such that..." appears at line 9 of claim 12. Applicants believe the logical interpretation of this phrase (which is the desired interpretation) is a reference to the succession of analog signals, in particular to each analog signal of the succession of analog signals.

The phrase "said value" appears at line 12 of claim 12. This phrase is logically interpreted as a reference to "a value determined by the digital information". This is also the desired interpretation.

The applicants request that the examiner telephone the representative at the phone number shown below to discuss any amendments that might be needed to clarify claim 12. The applicants believe that an advisory action based in any part on non-clarity of claim 12 would be improper without having had a better explanation of the rejection and would request a supplemental office action be issued instead.

Claims 1-2 were rejected under 35 U.S.C. 102(a) as being anticipated by Steinka et al. (US 5,134,611)

A rejection under 35 U.S.C. 102(a) requires that the "reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not taught

must be inherently present". (MPEP section 706.02 IV). Claim 1 includes the description: "the digital information from the digital adapter (5) being sent to the analog adapter (6), and vice versa, in a digital form without emulating an analog signal". The examiner has not cited this description nor where the examiner believes it to be described in Steinka et al. Applicants believe that Steinka et al. do not describe this aspect. The modem 19 in Steinka et al. is meant to interoperate with analog modem 6 (see Steinka et al., FIG. 3 and col. 4, line 67 to col. 5, line 12) in a conventional manner. The implementation of the modem 19 is digital, but its output toward 20 represents a sampled traditional analog waveform, with linear values. The function of the codec 20 is to transform the linear values into mu law values. So Steinka et al.'s digital adapter simply emulates an analog signal. What Steinka et al. is doing is equivalent to what Davis et al. describe in US patent 5,483,530, and what Blackwell et al. describe in US patent 5,671,251, and does not send digital information from a digital adaptor to an analog adaptor "in a digital form without emulating an analog signal." (Davis et al. and Blackwell et al. were traversed earlier during the prosecution of this application for very much the same reasons as Steinka et al. is traversed. [Modem Module 19] and [Codec 20] {FIG. 3} in Steinka et al. are analogous to, respectively, to [Analog Codec 385] and [DSP 340 {FIG. 3} - task 404 {FIG. 4} - col. 15, lines 43-46] of Davis et al., and [First Codec 310] and [Second Codec 316] {FIG. 4} of Blackwell.)

Accordingly, the applicants believe that claim 1 is patentable over Steinka et al. and also believe that claim 1 is patentable over any of the art cited in this application, taken either singly or in any combination. Applicants further believe that claim 2 is patentable inasmuch as it relies upon claim 1.

Claims 12-16 were rejected under 35 U.S.C. 102(e) as being anticipated by Ayanoglu et al. (US 5,528,625).

#### **Claim 12**

A rejection under 35 U.S.C. 102(e) requires that the "reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not taught must be inherently present." (MPEP section 706.02 IV). Claim 12 includes the description: "said resulting analog signal is substantially equal to the sum of a value determined by the digital information and of the echo of a signal being transmitted by the digital adapter (5), without said value having to be equal to a level of the quantization law, so that following the sampling of the resulting analog signal, a byte appears in the digital adapter (5), representing said sum." The examiner has not

cited this description nor where the examiner believes it to be described in Ayanoglu et al. Applicants believe that Ayanoglu et al. do not describe this aspect. Ayanoglu et al. in fact describes that the received signal at the analog to digital converter (the equivalent to the input portion of applicants' digital adaptor) must specifically be a quantization level (Ayanoglu et al. at least at col. 2, line 45 and col. 5, line 36).

Accordingly, the applicants believe that claim 12 is patentable over Ayanoglu et al. and also believe that claim 12 is patentable over any of the art cited in this application, taken either singly or in any combination.

#### **Claims 13 and 14**

A rejection under 35 U.S.C. 102(e) requires that the "reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not taught must be inherently present". (MPEP section 706.02 IV). Claim 12 includes the description: "wherein said means (15) forms a portion of the analog adapter (6) and includes an adaptive linear equalizer that forms a partial response output". The examiner has not cited where Ayanoglu et al. describe an adaptive linear equalizer that forms a partial response output. It is not inherent that an adaptive linear equalizer forms a partial response output. Applicants believe that Ayanoglu et al. do not describe this aspect.

Applicants further believe that characterizing Ayanoglu et al. as "describing an analog adaptor that includes means for receiving digital information from the digital adaptor at a rate of at least 8000 bits per second (see col. 4, line 55 to col. 5, line 7)" is not an accurate characterization of Ayanoglu et al. That which is described at col. 4, line 55 to col. 5, line 7 of Ayanoglu et al. is what is done at the central office **43** (see col. 4, line 57). But the examiner is clearly referring to Ayanoglu's "QLS modem" which comprises items **203** and/or **305** (Ayanoglu et al., FIG. 7, col. 11, lines 21-29), because the examiner goes on to refer to an adaptive equalizer of Ayanoglu, which is described at col. 8, line 65 to col. 10, line 4 as being "the receiver filters (receive equalizers) of a QLS modem". It will be noted that the QLS modem receiver is not an analog adaptor as described by applicants; the QLS modem receiver receives digital information (see FIG. 7, items 205, 281).

Nor do applicants believe that Ayanoglu et al. describe applicants' claimed "analog adapter". In the first place, Applicants' claimed analog adaptor is "for use in a communication system, wherein a digital adapter (5) of the communication system may be linked to a digital exchange (3) by means of a digital interface (7), and the analog adapter (6) may be linked to an analog exchange (4) by means of an analog interface (8), said exchanges (3,4) being linked by means of a telecommunications

network (2)". The only analog signal receiving device in Ayanoglu et al. that is coupled to a network is a CODEC of a digital exchange (Ayanoglu's FIG. 7, CODEC 1 301), which does not fit this part of applicants claimed description.

Furthermore, Ayanoglu's receiving modem component (FIG. 7, 205) of his QLS receives only 6ksymbols/second, which is clearly stated at col. 6, lines 9-21.

Accordingly, the applicants believe that claim 13 is patentable over Ayanoglu et al. and also believe that claim 13 is patentable over any of the art cited in this application, taken either singly or in any combination. Applicants further believe that claim 14 is patentable inasmuch as it relies upon claim 13.

#### **Claim 15**

Applicants believe that claim 15 is patentable inasmuch as it relies upon claim 12.

#### **Claim 16**

A rejection under 35 U.S.C. 102(e) requires that the "reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not taught must be inherently present". (MPEP section 706.02 IV). Claim 16 includes the description: "said resulting analog signal is substantially equal to the sum of a value determined by the digital information and of the echo of a signal being transmitted by the digital adapter (5), without said value having to be equal to a level of the quantization law, so that following the sampling of the resulting analog signal, a byte appears in the digital adapter (5), representing said sum." The examiner has not cited this description nor where the examiner believes it to be described in Ayanoglu et al. Applicants believe that Ayanoglu et al. do not describe this aspect. Ayanoglu et al in fact describes that the received signal at the analog to digital converter (the equivalent to the input portion of applicants' digital adaptor) must specifically be a quantization level (Ayanoglu et al. at least at col. 2, line 45 and col. 5, line 36).

Accordingly, the applicants believe that claim 16 is patentable over Ayanoglu et al. and also believe that claim 16 is patentable over any of the art cited in this application, taken either singly or in any combination.

Applicant notes that any amendments or claim cancellations made herein and not substantively discussed above are made solely for the purposes of more clearly and particularly describing and claiming the invention, and not for purposes of overcoming art. The Examiner should infer no (i) adoption of a position with respect to patentability, (ii) change in the Applicant's position with respect to any claim or subject matter of the invention, or (iii) acquiescence in any way to any position taken

by the Examiner, based on such amendments or cancellations not substantively discussed. Furthermore, any remarks made herein with respect to a given claim or amendment are intended only in the context of that specific claim or amendment, and should not be applied to other claims, amendments, or aspects of Applicant's invention.

Applicant specifically reserves the right to prosecute claims of differing and broader scope than those presented herein, in a continuation application.

The Applicants believe that the subject application, as amended, is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

SEND CORRESPONDENCE TO:

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